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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,571	12/26/2001	Ji Won Lee	P-0298	8370
34610	7590	08/24/2004	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			YENKE, BRIAN P	
			ART UNIT	PAPER NUMBER
			2614	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/025,571	Applicant(s) LEE, JI WON	
	Examiner BRIAN P. YENKE	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-15 and 19-20 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 16-18 and 21-25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 10-15 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Jeong, US 6,515,712.

In considering claim 1,

a) the claimed a transmitting unit... is met by transmitting unit 300 which includes an IF modulator 321 which modulates an image signal into an IF signal, an upconverter 322 which upconverts the IF signal into an RF signal, and IPA 322/HPA 324 which amplify the signal to a predetermined levels and transmit the RF signal (Fig 3) (col 5, line 19-65).

b) the claimed a linear compensation unit... is met by auto correction unit 400 (Fig 3) which varies the tap coefficient of the equalizer 460 by compensating for the linear distortion of the output signal from HPA 324 (col 7, line 21-37). The correction unit compares the resultant signal outputted by the signal processor in a distorted state with a reference signal derived from the baseband signals directly received from the

modulator, and generates a control signal based on the comparison. Thus the limitation of whether a SNR of the PA satisfies a prescribed standard is met where the noise ratio is based upon the output signal and the reference signal (standard being the difference between the output and the reference signals).

In considering claim 2,

The claim calls for the use of the prescribed standard comprising the advanced television system committee. Since the device/system above performs all the functions/limitations of the claimed device, the recitation of a particular standard is not patentably distinct since it merely recites the same system related to the "intended use" of the device/system.

In considering claim 3,

a) the claimed a correction circuit... is met by auto correction circuit 400 which includes I/Q demodulator 420 (Fig 3)

b) the claimed a computer... is met where auto correction circuit 400 which may be implemented in hardware/software or a DSP (col 7, line 10-21) based upon the noise (SNR) of the outputted signal, where the circuit 400 selects/varies the coefficients of the equalizer in order to linearly compensate for the distorted outputted signal.

In considering claim 4,

a) the claimed a down-converter... is met by downconverter 410 (Fig 3).

b) the claimed a demodulator... is met by I-Q demodulator 420 (Fig 3).

In considering claims 5 and 7,

a) the claimed a linear compensation module... is met by adaptive complex equalizer 460 and LUT memory 480 where the LUT converts coefficients of the equalizer and output a linear compensation coefficients to transmitting unit 300 based on the SNR of the outputted signal.

b) the claimed generator to control an operation of the adaptive equalizer and linear compensation module is met by control unit 470.

In considering claim 6,

The claimed wherein the linear compensation module... is met where auto correction circuit 400 which may be implemented in hardware/software or a DSP (col 7, line 10-21)

In considering claim 10,

a) the claimed a transmitting unit... is met by transmitting unit 300 which includes an IF modulator 321 which modulates an image signal into an IF signal, an upconverter 322 which upconverts the IF signal into an RF signal, and IPA 322/HPA 324 which amplify the signal to a predetermined levels and transmit the RF signal (Fig 3) (col 5, line 19-65).

b) the claimed a correction circuit... is met by auto correction circuit 400 which includes I/Q demodulator 420 (Fig 3)

c) the claimed a computer... is met where auto correction circuit 400 which may be implemented in hardware/software or a DSP (col 7, line 10-21) based upon the noise (SNR) of the outputted signal, where the circuit 400 selects/varies the coefficients of the equalizer in order to linear compensate for the distorted outputted signal.

In considering claim 11,

Please refer to claim 4 above.

In considering claim 12,

Please refer to claim 5 above.

In considering claim 13,

Please refer to claim 6 above.

In considering claim 14,

Please refer to claim 7 above.

In considering claim 15,

Please refer to claim 2 above.

In considering claim 19,

a-d) the claimed determining whether a first SNR for an output signal...is met by auto correction unit 400 (Fig 3) which varies the tap coefficient of the equalizer 460 by compensating for the linear distortion of the output signal from HPA 324 (col 7, line 21-37) where the error calculation is performed in LUT 480. The correction unit compares the resultant signal outputted by the signal processor in a distorted state with a reference signal derived from the based band signals directly received from the modulator, and generates a control signal based on the comparison. Thus the limitation of whether a SNR of the PA satisfies a prescribed standard is met where the noise ratio is based upon the output signal and the reference signal (standard being the difference between the output and the reference signals).

In considering claim 20,

Please refer to claim 2 above.

Allowable Subject Matter

2. Claims 8-9, 16-18 and 21-25 appear to be allowable over the prior art of record, if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—see newly cited references on attached form PTO-892.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or

relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

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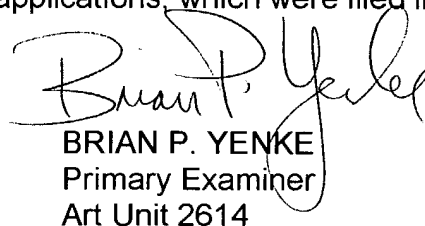
An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

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General information brochures can also be obtained in person from the Patent Search Room located in Crystal Plaza 3, Room 1A03, 2021 South Clark Place, Arlington, VA 22202.

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BRIAN P. YENKE
Primary Examiner
Art Unit 2614


B.P.Y.

18 August 2004